

Title (en)
OXIDE POWDER AND METHOD FOR PREPARING THE SAME, AND PRODUCT USING THE SAME

Title (de)
OXIDPULVER, VERFAHREN ZUR HERSTELLUNG DESSELBEN UND PRODUKT DIESES VERWENDEND.

Title (fr)
POUDRE D'OXYDE, PROCEDE DE PRODUCTION DE CELLE-CI ET PRODUIT L'UTILISANT

Publication
EP 1188714 B1 20150304 (EN)

Application
EP 00985982 A 20001227

Priority
• JP 0009397 W 20001227
• JP 2000015405 A 20000125

Abstract (en)
[origin: EP1188714A1] Firstly, a powder matrix is kept in a fluent state, said powder matrix consisting of a first oxide having an absorbed water amount of 0.1 to 50%, an averaged particle diameter of 0.005 to 0.5 μm and a surface hydroxyl group number of 0.1 to 25 $\mu\text{mol}/\text{m}^2$. Then, one or both of a halide and an alkoxide including metal or semi-metal identical with or different from the metal or semi-metal constituting said first oxide is allowed to contact with said powder matrix kept in the fluent state, by means of an inert carrier gas, and then they are heated at a temperature of from 25 to 800 DEG C, to thereby coat said powder matrix by a coating layer consisting of a second oxide. Further, a reaction by-product consisting of one or both of a hydrogen halide or an alcohol generated by said contacting is heated at a temperature of from 200 to 1000 DEG C within the inert carrier gas to thereby eliminate the reaction by-product. This invention enables by a chemical means, for a powder matrix consisting of a first oxide, the surface of said powder matrix to be uniformly coated at a low cost by a coating layer consisting of a second oxide identical with or different from the first oxide. In said oxide powder, both the powder matrix and the coating layer can develop their respective physical and chemical characteristics satisfactorily. <IMAGE>

IPC 8 full level
C01B 13/14 (2006.01); **B01J 21/06** (2006.01); **B01J 23/16** (2006.01); **B01J 35/00** (2006.01); **B01J 35/02** (2006.01); **B01J 37/02** (2006.01); **B41J 2/01** (2006.01); **B41M 5/00** (2006.01); **B41M 5/50** (2006.01); **B41M 5/52** (2006.01); **B41M 7/00** (2006.01); **C01B 33/18** (2006.01); **C01F 7/02** (2006.01); **C01G 23/04** (2006.01); **C09C 1/30** (2006.01); **C09C 1/36** (2006.01); **C09C 1/40** (2006.01); **C09C 3/00** (2006.01); **C09C 3/06** (2006.01); **C09C 3/12** (2006.01); **C09G 1/02** (2006.01); **C09K 3/00** (2006.01); **C09K 3/14** (2006.01); **C09K 3/16** (2006.01); **G03G 9/08** (2006.01); **G03G 9/097** (2006.01); **H01B 1/08** (2006.01); **H01B 5/00** (2006.01); **B41M 1/04** (2006.01)

CPC (source: EP KR US)
B01J 20/06 (2013.01 - EP US); **B01J 21/063** (2013.01 - EP US); **B01J 21/066** (2013.01 - EP US); **B01J 23/16** (2013.01 - EP US); **B01J 35/39** (2024.01 - EP US); **B01J 35/40** (2024.01 - EP US); **B01J 37/0209** (2013.01 - EP US); **B41M 5/506** (2013.01 - EP US); **B41M 5/52** (2013.01 - EP US); **B41M 7/0027** (2013.01 - EP US); **B82Y 30/00** (2013.01 - EP US); **C01B 13/14** (2013.01 - KR); **C01B 13/145** (2013.01 - EP US); **C01G 1/02** (2013.01 - KR); **C01G 23/04** (2013.01 - KR); **C09C 1/3054** (2013.01 - EP US); **C09C 1/3661** (2013.01 - EP US); **C09C 1/407** (2013.01 - EP US); **C09C 3/006** (2013.01 - EP US); **C09C 3/06** (2013.01 - EP US); **C09C 3/12** (2013.01 - EP US); **C09G 1/02** (2013.01 - EP US); **C09K 3/1436** (2013.01 - EP US); **C09K 3/1463** (2013.01 - EP US); **G03G 9/09708** (2013.01 - EP US); **G03G 9/09725** (2013.01 - EP US); **H01B 1/08** (2013.01 - EP US); **B41M 1/04** (2013.01 - EP US); **B41M 5/504** (2013.01 - EP US); **B41M 5/5236** (2013.01 - EP US); **B41M 5/5245** (2013.01 - EP US); **B41M 5/5254** (2013.01 - EP US); **B41M 5/5281** (2013.01 - EP US); **B41M 2205/36** (2013.01 - EP US); **B41M 2205/38** (2013.01 - EP US); **C01P 2004/62** (2013.01 - EP US); **C01P 2004/64** (2013.01 - EP US); **C01P 2004/84** (2013.01 - EP US); **C01P 2004/86** (2013.01 - EP US); **C01P 2006/12** (2013.01 - EP US); **C01P 2006/60** (2013.01 - EP US); **Y10T 428/2991** (2015.01 - EP US); **Y10T 428/2993** (2015.01 - EP US); **Y10T 428/2995** (2015.01 - EP US)

Citation (examination)
• WO 9811865 A1 19980326 - POLA CHEM IND INC [JP], et al
• US 5248556 A 19930928 - MATIJEVIC EGON [US], et al

Cited by
EP1813658A3; EP1424604A3; EP1696004A1; US6677095B2; US7115349B2; WO2009077412A3

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 1188714 A1 20020320; **EP 1188714 A4 20090708**; **EP 1188714 B1 20150304**; CA 2368266 A1 20010802; CA 2368266 C 20050906; JP 4255233 B2 20090415; KR 100461885 B1 20041214; KR 20020004981 A 20020116; US 2003022081 A1 20030130; US 6620508 B2 20030916; WO 0155028 A1 20010802

DOCDB simple family (application)
EP 00985982 A 20001227; CA 2368266 A 20001227; JP 0009397 W 20001227; JP 2001554979 A 20001227; KR 20017012155 A 20010924; US 93758101 A 20010925